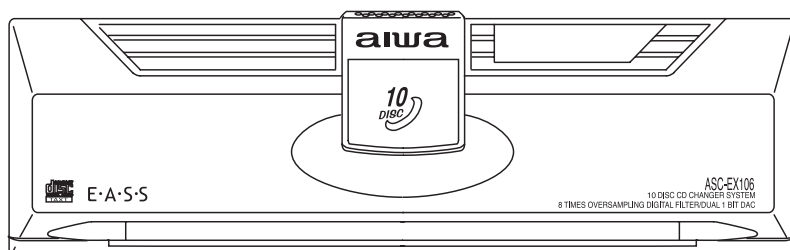


ADC-EX108

YZ

ADC-M105

YL,YH



SERVICE MANUAL

STEREO CAR
CD CHANGER SYSTEM

BASIC CD MECHANISM : 8ZG-4 RNF

- This Service Manual is the "Revision Publishing" and replaces "Simple Manual", (S/M Code No. 09-003-404-5T7).

aiwa

S/M Code No. 09-003-404-5R7

REVISION

DATA

SPECIFICATIONS

<Compact disc changer>

System	Compact disc digital audio system
Frequency Response	5 Hz - 20 kHz
Wow and flutter	Below measurable limit
Signal to noise ratio	91 dB or more
Outputs	Line output (for changer connector only)
Operating temperature	-10 °C to 55 °C
Dimensions	254 x 83 x 173mm (w/h/d) (10 x 3 ³ / ₈ x 6 ⁷ / ₈ in.)
Weight	2.1 kg (4.62 lbs.)
Power requirement	12 V DC car battery (negative ground)
D/A converter	1 bit DAC, 8 times over sampling
Sampling rate	44.1 kHz
Disc size	120 mm

- Design and specifications are subject to change without notice.

ACCESSORIES / PACKAGE LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-KM3-914-010	IB,YL(3L)	M105-I<YL>
1	8Z-KM3-915-010	IB,YZ(9L)	108,M105-I<YZ>
1	8Z-KM3-916-010	IB,YH,Y(E CK CH A)	108M105-I<YH>
2	87-B10-208-010	VWWS+4-12	BLK
3	8Z-KM1-210-110	PLATE,UNIT	ASSY
4	8Z-KM1-218-010	NUT,5	HEX-FLANGE
5	8Z-KM1-209-010	HLDR,UNIT	10A
6	8Z-KM1-216-010	HLDR,UNIT	10B
7	8Z-KM4-651-010	CABLE	ASSY,13PIN-DIN

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

WARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvisning, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

ATTENTION

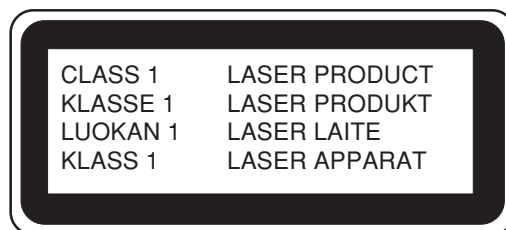
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL

Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.

The CLASS 1 LASER PRODUCT label is located on the rear exterior.



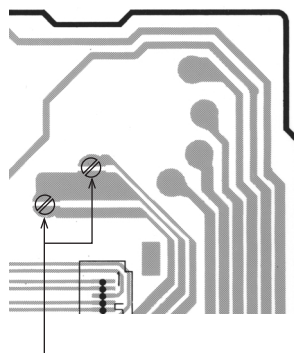
Precaution to replace Optical block

(KSS-710A)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

- 1) After the connection, remove solder shown in right figure.

PICK-UP ASSY
P.C.B



SOLDER

SERVICE JIG AND TOOLS

1. How to Use the Repair Jig

Use the following repair jig kit for servicing.

	Part name	Part code
For 10 CD changer	JIG-ADC-EX106	SV-J00-090-010

The kit contains the following parts (Refer to Fig-1) ;

1. FFC (26P/25 cm) 1 pcs
 2. P.W.B. FLEX 1 pcs
 3. P.W.B. JIG 1 pcs
 4. TRANSISTOR (2SD-2395) 1 pcs
 5. P.W.B. KEY 1 pcs
- (1) Remove the cabinet as follows;
 - 1) Remove the CABI BOTTOM by removing the four screws VTT+2.6-6B (Refer to Fig-2).
 - (2) Remove the P.W.B. MAIN as follows;
 - 1) Remove all terminals of the transistor Q623 (2SD2395) by unsoldering them.
 - 2) Remove the two motor wires (BLU/WHT).
 - 3) Remove the two wires (BLK/BRN) of the sensor (PD201).
 - 4) Remove the P.W.B. MAIN from the unit by removing the four screws V+2-3.
 - 5) Disconnect the FFC of pickup from CN101.
 - 6) Disconnect the PWB FLEX from CON1.
 - 7) Remove the LED (LED201, GL380) from the P.W.B. MAIN.
 - 8) Remove the sensor (PS201, SENR GP1S94) from P.W.B. MAIN.
 - (3) Install the repair jig as follows;
 - 1) Install the P.W.B. JIG into the unit and fix it with screws. (Refer to Fig-3).
 - (4) Attach the parts as follows, (Refer to Fig-4);
 - 1) Attach the supplied transistor to the location of the P.W.B. MAIN from which Q623 is removed in step (2).
 - 2) Connect the supplied PWB FLEX to CON1.
 - When the CONTROL UNIT is not used, use the P.W.B. KEY instead. (Refer to step (6), How to use the repair jig.)
 - 3) Connect the FFC cable to CON101 and pickup. (The supplied FFC cannot be used because pitches and number of pins are different.)

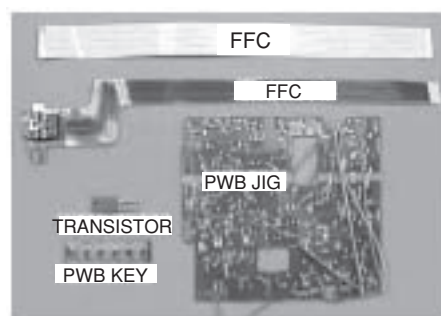


Fig-1

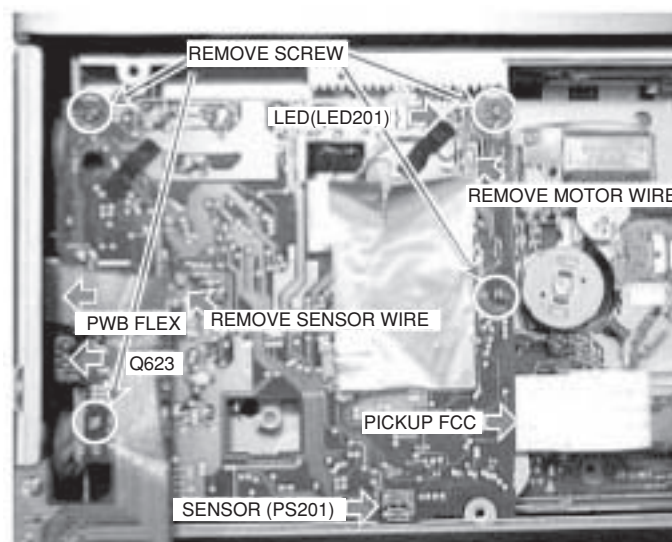


Fig-2



Fig-3

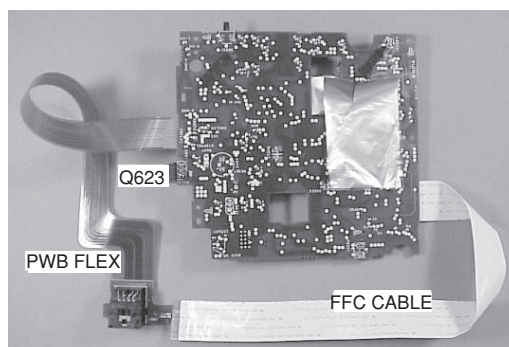


Fig-4

- (5) Perform wirings to the C.Bs. Refer to Fig-5/-6;
- Be sure to connect the wires coming from the P.W.B. JIG to the same connecting points on the MAIN C.B as follows.
- 1) Connect the motor wires and sensor (PD201) wires that are removed in step (2) to the P.W.B. JIG.
 - 2) Connect all wires coming from the P.W.B. JIG to the respective lands of the MAIN C.B by soldering.
 - Connect the motor wires (BLU/WHT) of the P.W.B. JIG to the motor wire connecting lands on the MAIN C.B by soldering.
 - Connect the LED (LED201) wires (RED/GRY) of the P.W.B. JIG to the LED wire connecting lands on the MAIN C.B by soldering.
 - Connect the sensor wires (BRN/BLK) of the P.W.B. JIG to the sensor wire connecting lands on the MAIN C.B by soldering.
 - Connect the sensor (PS201) wires (YEL/ORG/RED/BRN) of the P.W.B. JIG to the sensor wire connecting lands on the MAIN C.B by soldering.
 - Connect the SW202 wire (WHT) of the P.W.B. JIG to the SW202 wire connecting lands on the MAIN C.B by soldering.
 - Connect the SW203 wire (BLK) of the P.W.B. JIG to the SW203 wire connecting lands on the MAIN C.B by soldering.
 - Connect the SW204 wires (BLU/WHT) of the P.W.B. JIG to the leads of SW204 on the MAIN C.B by soldering. Refer to Fig-6.

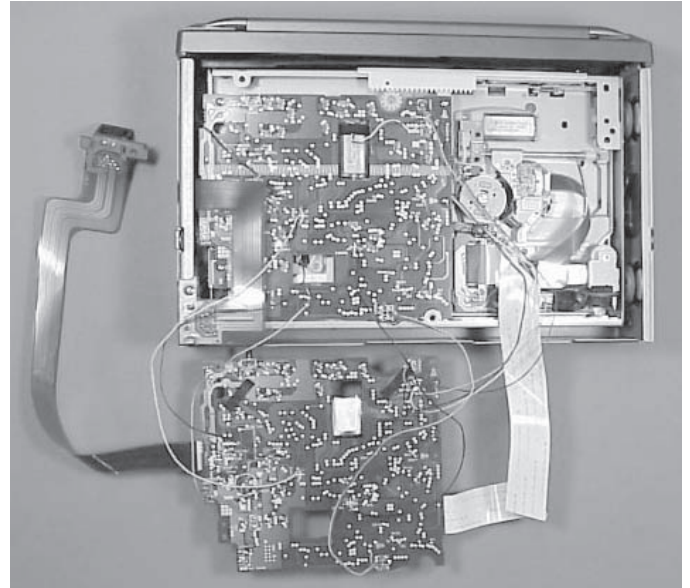


Fig-5

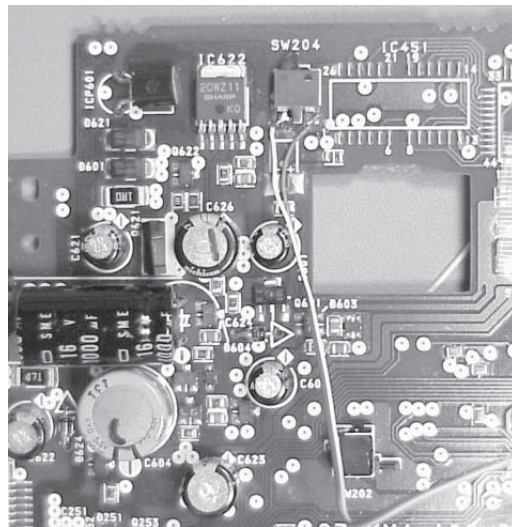


Fig-6

- (6) How to use the repair jig;
- When the Control Unit (CDC/CT) is going to be used.
- 1) After all wires and connections are complete, connect the Control Unit (CDC/CT) with the DIN jack of the P.W.B. FLEX.
 - 2) Connect external power +12 V to ACC/BACKUP wire and ground (-) to the GROUND wire.
 - 3) Perform the operation check.
- When the Control Unit (CDC/CT) is not used.
- 1) Connect the supplied P.W.B KEY to the MAIN C.B by performing all connections between them. Refer to Fig-7/-8.
(Wires to be used for connecting the MAIN C.B are not supplied.)
 - 2) Connect the wires as follows. Refer to Fig-9.

P.W.B KEY	MAIN C.B
HOT	TO
GND	GND

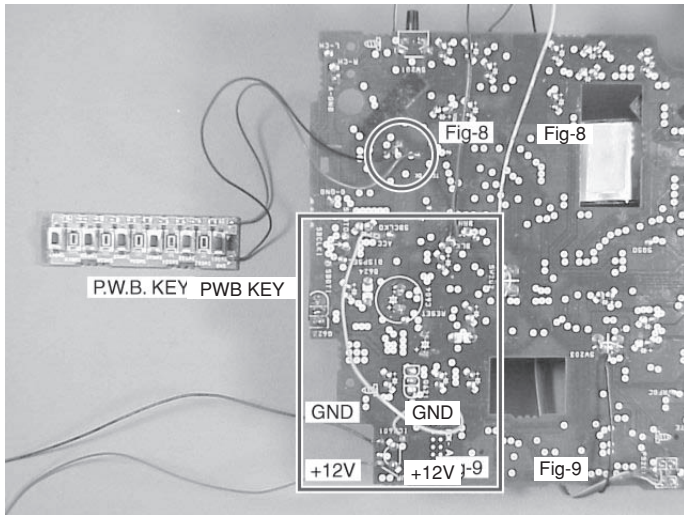


Fig-7

- 2) Connect the wires as follows (Refer to Fig-9);
 - Connect wire for +12 V power to BACK UP of ICP601 by soldering.
 - Connect ICP601 and ACC pattern land by soldering a wire.
 - Connect GND by soldering a wire.
 - Connect the +12 V power to the ACC/BACK UP wire and connect ground (-) to the GROUND wire of the connector (Wires to be used for connection are not supplied.)

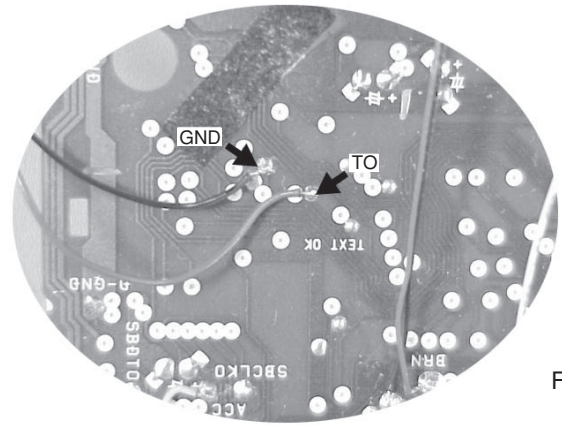


Fig-8

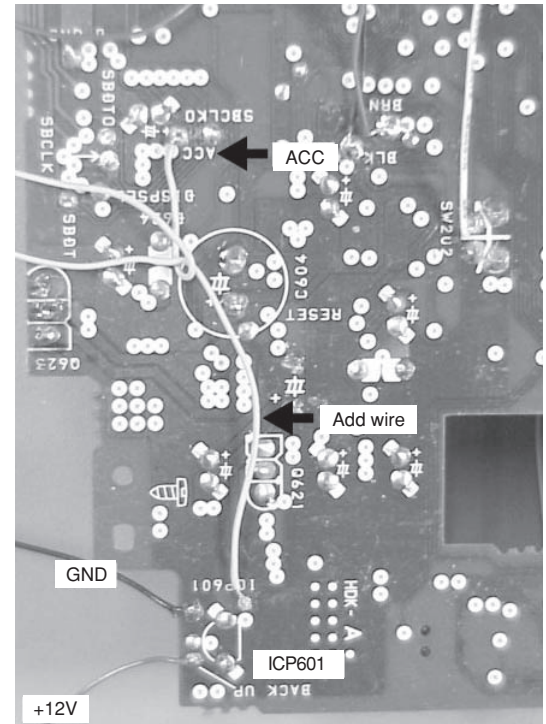


Fig-9

- 3) Perform the operation check (Refer to Fig-10).
The P.W.B Key has the following pin assignment.

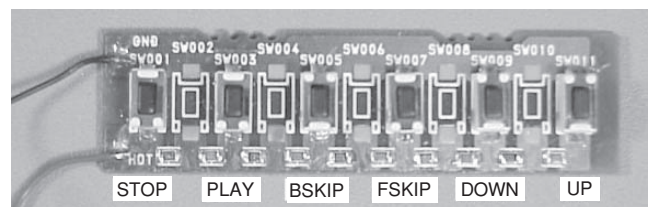


Fig-10

ELECTRICAL MAIN PARTS LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC				C305	87-015-696-040		CAP,E 2.2-50 SRA
	87-A20-892-010	C-IC,CXD2588R		C306	87-015-696-040		CAP,E 2.2-50 SRA
	87-A21-467-010	C-IC,CXA2581N		C307	87-010-178-080		CHIP CAP 1000P
	8Z-KM3-691-010	C-IC,CXP84632-143Q		C308	87-010-178-080		CHIP CAP 1000P
	87-A21-158-040	C-IC,TC74HC365AF		C321	87-010-555-040		CAP,E 100-10
	87-017-888-080	IC,NJM4558MD		C322	87-016-669-080		C-CAP,S 0.1-25 K B
	87-A21-161-040	C-IC,BA6392FP		C323	87-010-550-040		CAP,E 100-6.3 GAS
	87-A21-162-040	C-IC,BA6247FP		C324	87-016-669-080		C-CAP,S 0.1-25 K B
	87-A21-102-040	C-IC,S-80828ANNP-EDR-T2		C325	87-010-550-040		CAP,E 100-6.3 GAS
	87-A21-190-040	C-IC,PQ20WZ1U		C501	87-010-555-040		CAP,E 100-10 GAS
TRANSISTOR				C503	87-016-669-080		C-CAP,S 0.1-25 K B
	87-A30-248-040	C-TR,2SB1197KQ		C505	87-010-178-080		CHIP CAP 1000P
	89-110-372-080	TR,2SA1037KR		C506	87-A11-257-010		CAP,E 470U-10M
	87-026-648-080	C-TR,UPA608T		C551	87-010-555-040		CAP,E 100-10 M 5L
	89-327-125-080	CHIP TR,2SC2712GR		C552	87-A11-257-010		CAP,E 470U-10M
	87-A30-272-040	C-TR,DTA124EKA		C553	87-016-669-080		C-CAP,S 0.1-25 K B
	87-A30-273-040	C-TR,DTC124EKA		C554	87-016-669-080		C-CAP,S 0.1-25 K B
	87-A30-274-040	C-TR,2SD1622S-TD		C555	87-016-669-080		C-CAP,S 0.1-25 K B
	87-A30-317-080	TR,2SA1702		C556	87-016-669-080		C-CAP,S 0.1-25 K B
	89-423-952-010	TR,2SD2395E		C601	87-010-552-040		CAP,E 22-16 GAS
	87-A30-371-040	C-TR,2SD1623		C602	87-A10-368-080		C-CAP,S 2.2-10 Z F
DIODE				C603	87-010-552-040		CAP,E 22-16 GAS
	87-A40-250-040	CHIP-DIODE,DAN217		C604	87-010-782-010		CAP,DL 0.047F-5.5 Z 70
	87-A40-196-080	C-ZENER,UDZ6.2B		C605	87-016-669-080		C-CAP,S 0.1-25 K B
	87-020-331-080	CHIP-DIODE,DAN202K		C606	87-A10-368-080		C-CAP,S 2.2-10 Z F
	87-A40-524-040	C-DIODE,1SR154-400		C621	87-010-552-040		CAP,E 22-16 GAS
	87-070-136-080	ZENER,MTZJ5.1B		C622	87-010-555-040		CAP,E 100-10 M 5L
	87-A40-437-080	ZENER,MTZJ4.3B		C623	87-010-555-040		CAP,E 100-10 M 5L
MAIN C.B				C624	87-010-260-080		CAP,E 47-25 M 11L SME
C102	87-010-499-040	CAP,E 22-6.3 GAS		C625	87-016-669-080		C-CAP,S 0.1-25 K B
C103	87-A12-154-010	CAP,E 470-4 MA GAS		C626	87-016-044-040		CAP,E 100-16 GAS
C104	87-016-669-080	C-CAP,S 0.1-25 K B		C631	87-010-555-040		CAP,E 100-10 M 5L
C105	87-016-669-080	C-CAP,S 0.1-25 K B		C632	87-010-552-040		CAP,E 22-16 M 5L
C106	87-016-669-080	C-CAP,S 0.1-25 K B		C901	87-010-197-080		C-CAP,S 0.01-25 K B C2012
C107	87-010-184-080	C-CAP,S 3300P-50 KB		C902	87-016-669-080		C-CAP,S 0.1-25 K B
C108	87-016-526-080	C-CAP,S 0.47-16 BK		CN101	87-A61-155-080		C-CONN,30P H XF2H-3015-1
C109	87-012-156-080	C-CAP,S 220P-50 CH		FC101	8Z-KM3-672-010		FF-CABLE, 30P 0.5 145MM
C110	87-010-184-080	CHIP CAPACITOR 3300P(K)		FC102	8Z-KM3-608-010		F-CABLE,2P (SENS KM3)
C111	87-010-992-080	C-CAP,S 0.047-25 B		HL201	8Z-KM1-232-010		HLDR,LED
C112	87-016-669-080	C-CAP,S 0.1-25 K B		ICP601	87-A91-337-080		PROTECTOR,IC ICP-N75
C115	87-012-154-080	C-CAP,S 150P-50 CH		L101	87-A50-536-080		C-COIL, 10UH K LQH3C24
C116	87-012-154-080	C-CAP,S 150P-50 CH		L151	87-A50-536-080		C-COIL,10UH K LQH3C24
C117	87-010-176-080	C-CAP,S 680P-50 SL		L152	87-A50-536-080		C-COIL,10UH K LQH3C24
C118	87-010-176-080	C-CAP,S 680P-50 SL		L201	87-A50-536-080		C-COIL,10UH K LQH3C24
C151	87-A10-711-080	C-CAP,E 100-6.3 M MF<YL>		L301	87-A50-536-080		C-COIL,10UH K LQH3C24
C152	87-016-669-080	C-CAP,S 0.1-25 K B		L501	87-A50-536-080		C-COIL,10UH K LQH3C24
C153	87-A10-711-080	C-CAP,E 100-6.3 M MF		L551	87-A50-536-080		C-COIL,10UH K LQH3C24
C155	87-016-669-080	C-CAP,S 0.1-25 K B		LED201	87-070-288-010		LED,GL380
C156	87-016-669-080	C-CAP,S 0.1-25 K B		PS201	87-A90-244-010		SNSR,GP1S94
C157	87-012-156-080	C-CAP,S 220P-50 CH		SW201	87-A91-155-010		SW,TACT SKHHLQ
C158	87-010-992-080	C-CAP,S 0.047-25 B		SW202	87-036-110-010		SW,MICRO SPPB62
C159	87-012-156-080	C-CAP,S 220P-50 CH		SW203	87-036-110-010		SW,MICRO SPPB62
C161	87-016-669-080	C-CAP,S 0.1-25 K B		SW204	87-036-312-080		SW PUSH ESE102MH4-Q
C162	87-A12-031-080	C-CAP,E 33-10 M MF		X101	87-A70-163-080		C-VIB,CER 16.93MHZ CSTCVMXJ0C4
C165	87-016-669-080	C-CAP,S 0.1-25 KB		X200	87-A70-200-080		C-VIB,CER 12MHZ CSTCV12MTJ0C4
C166	87-016-669-080	C-CAP,S 0.1-25 KB		SENS C.B			
C201	87-016-669-080	C-CAP,S 0.1-25 K B		PD201	87-026-674-010		P-TR,PT4850F
C202	87-016-669-080	C-CAP,S 0.1-25 K B		DIN C.B			
C251	87-010-197-080	C-CAP,S 0.01-25 KB		J901	8Z-KM3-638-010		JACK,DIN 13 P TCS5125-014151
C252	87-012-140-080	C-CAP,S 470P-50 J CH		FLEX DIN C.B			
C301	87-010-552-040	CAP,E 22-16 GAS			8Z-KM3-606-010		PWB,FLEX DIN (ZKM3)
C302	87-010-552-040	CAP,E 22-16 GAS		SW C.B			
C303	87-010-318-080	C-CAP,S 47P-50 CH					
C304	87-010-318-080	C-CAP,S 47P-50 CH					

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
SW801	87-036-269-080		C-SW,PUSH 1-1-1 ESE102MH2
SW802	87-036-312-080		C-SW,PUSH ESE102MH4-Q
W803	8Z-KM3-625-010		F-CABLE,4P (SWITCH)

LED C.B

CNA800	8Z-KM3-623-210	CONN ASSY,2P (LED)
CON803	87-009-863-010	CONN,2P WHT ZH
LED801	87-A40-319-080	C-LED,LT1E40A GRN
LED802	87-A40-320-080	C-LED,LT1H40A Y
LED803	87-A40-319-080	C-LED,LT1E40A GRN

CONNECT C.B

CON801	87-A61-155-080	C-CONN,30P H XF2H-3015-1
CON802	87-A61-240-080	C-CONN,16P H FLZ-RSM1-TB
M802	87-A91-054-010	MOT,FF-050SK
M803	87-A91-054-010	MOT,FF-050SK
M804	87-A90-926-010	MOT,RF-3L0PA

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
LIMIT C.B			
SW803	87-036-312-080		C-SW,PUSH ESE102MH4-Q
W804	8Z-KM3-624-010		F-CABLE,2P (LIMIT)

FLEX PICK UP C.B

8Z-KM4-631-010	PWB,FLEX PICK UP (AK)
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チップ抵抗部品コード／CHIP RESISTOR PART CODE

チップ抵抗部品コードの成り立ち

Chip Resistor Part Coding



A
抵抗部品コード
Resistor Code

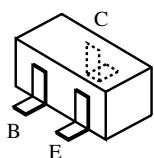
桁表示
Figure

抵抗値
Value of resistor

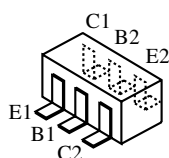
チップ抵抗 Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法/Dimensions (mm)				抵抗コード : A Resistor Code : A
				外形/Form	L	W	t	
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

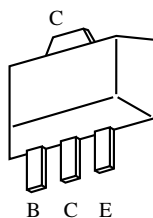
TRANSISTOR ILLUSTRATION



2SA1037
2SB1197
2SC2712
2SD1623
DTA124EKA
DTC124EKA



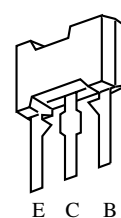
UPA608T



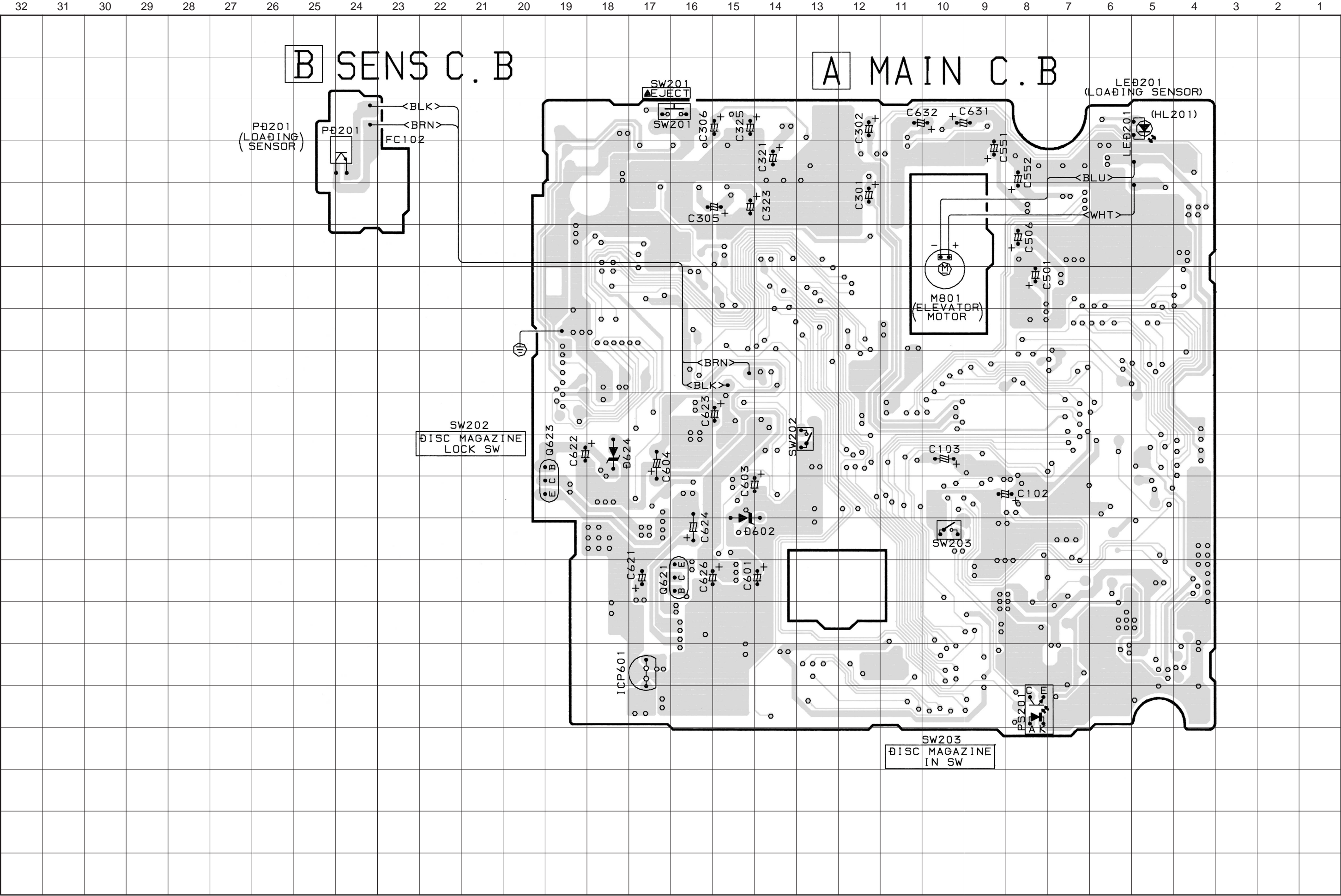
2SD1622

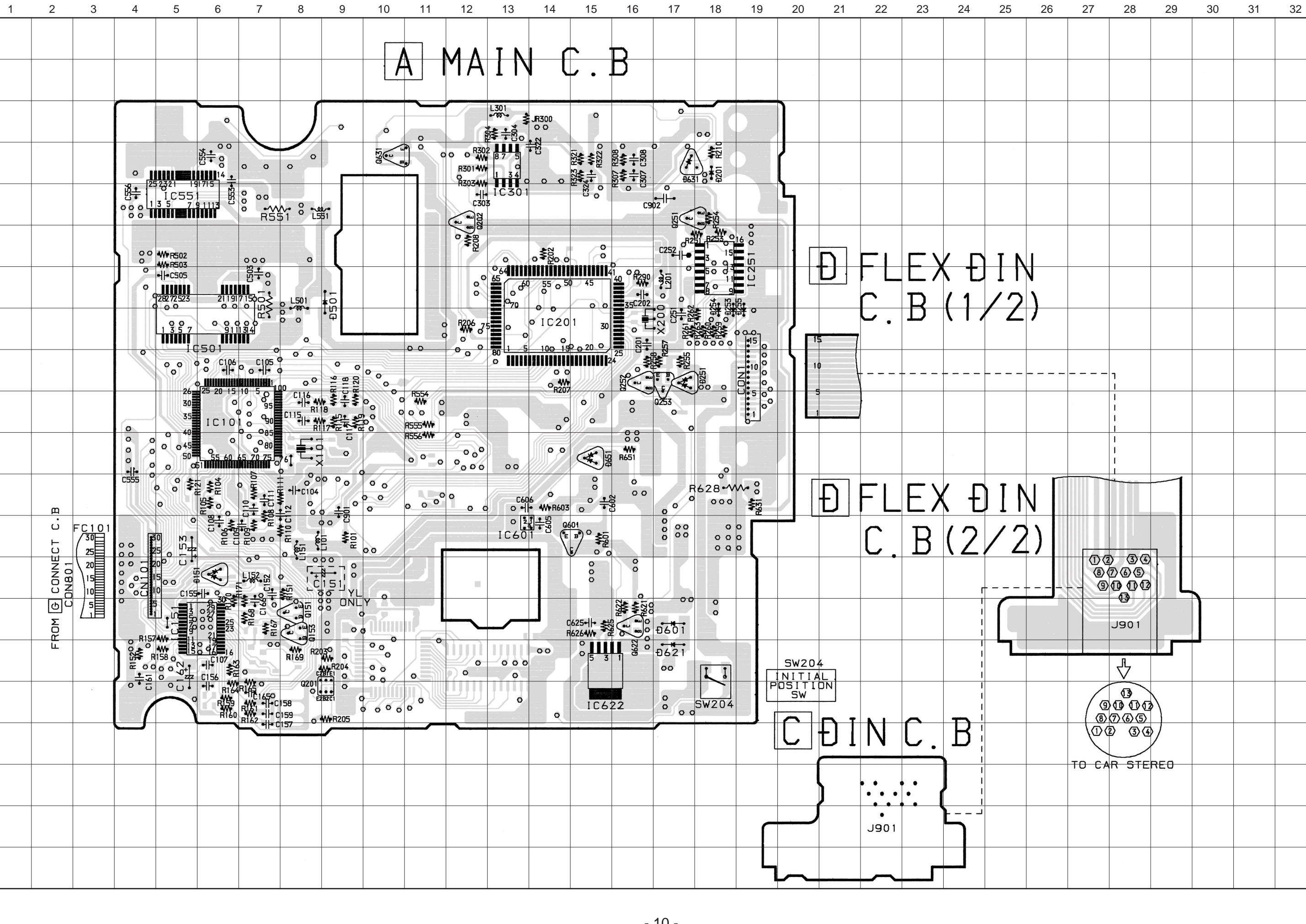


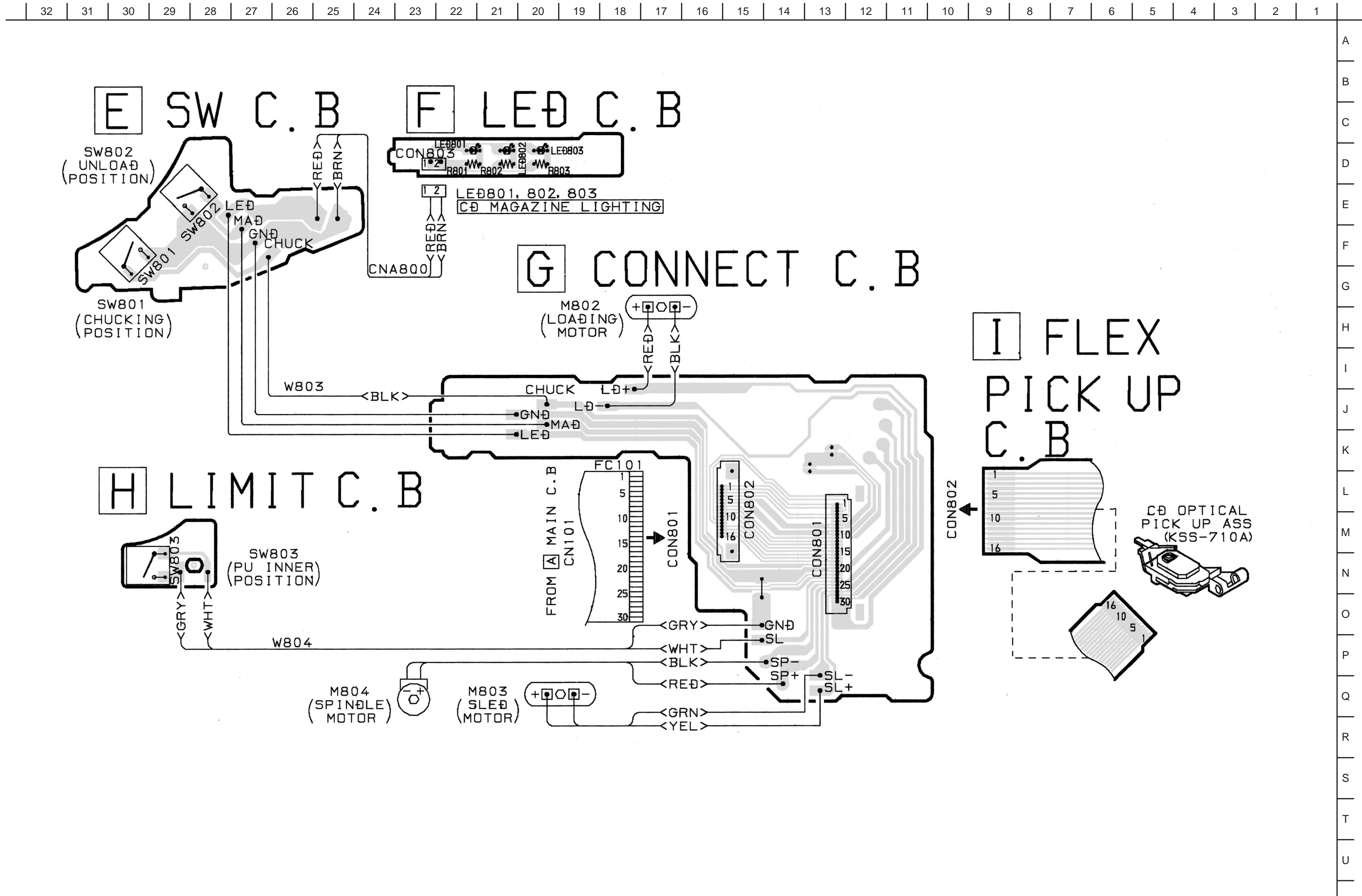
2SD2395



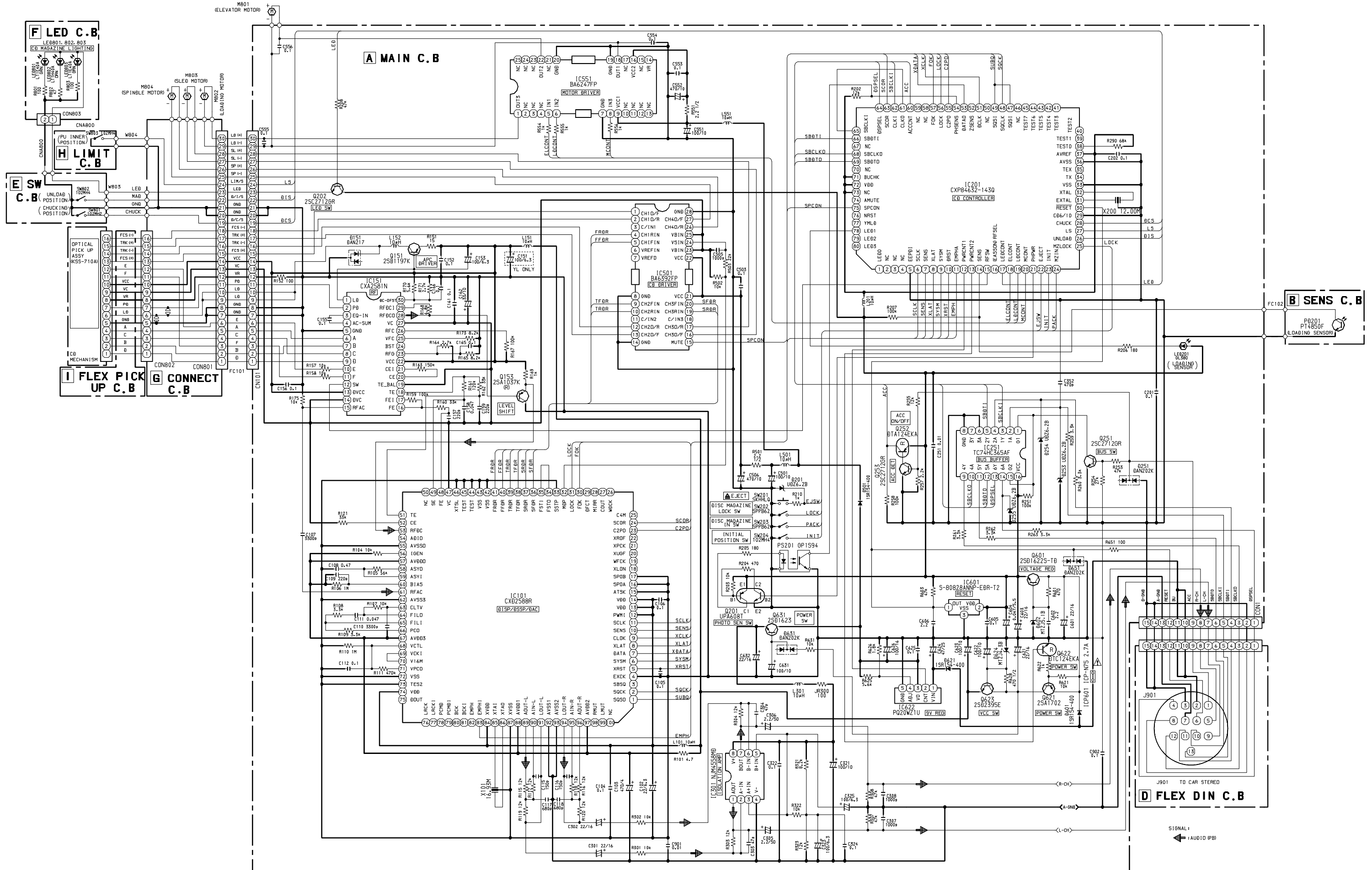
2SA1702





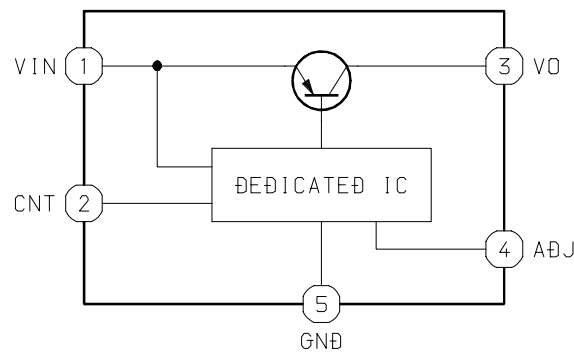


SCHEMATIC DIAGRAM

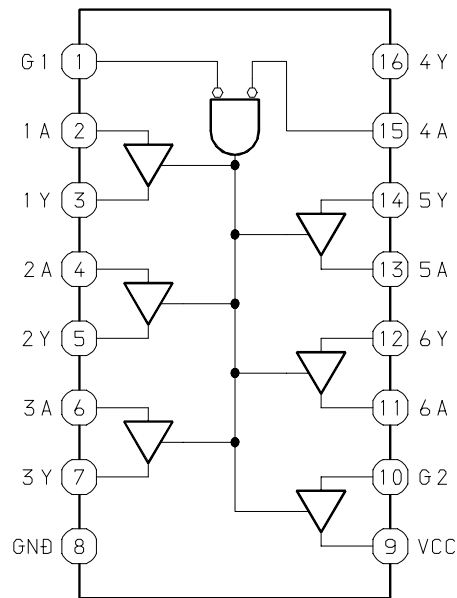


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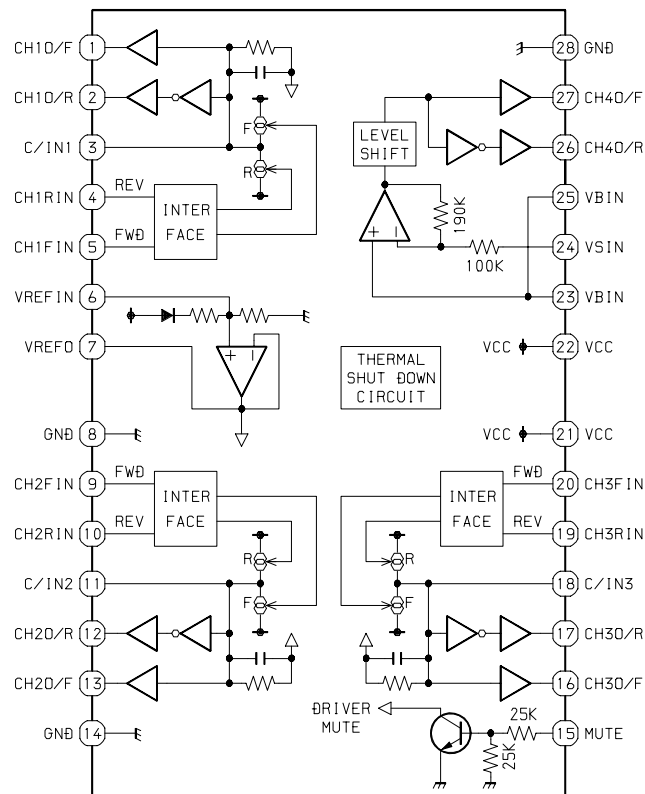
IC, PQ20WZ1U



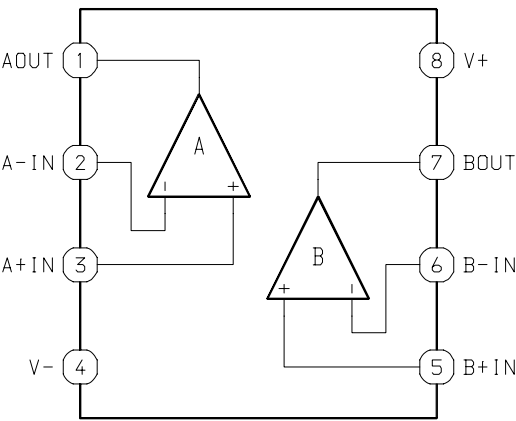
IC, TC74HC365AF



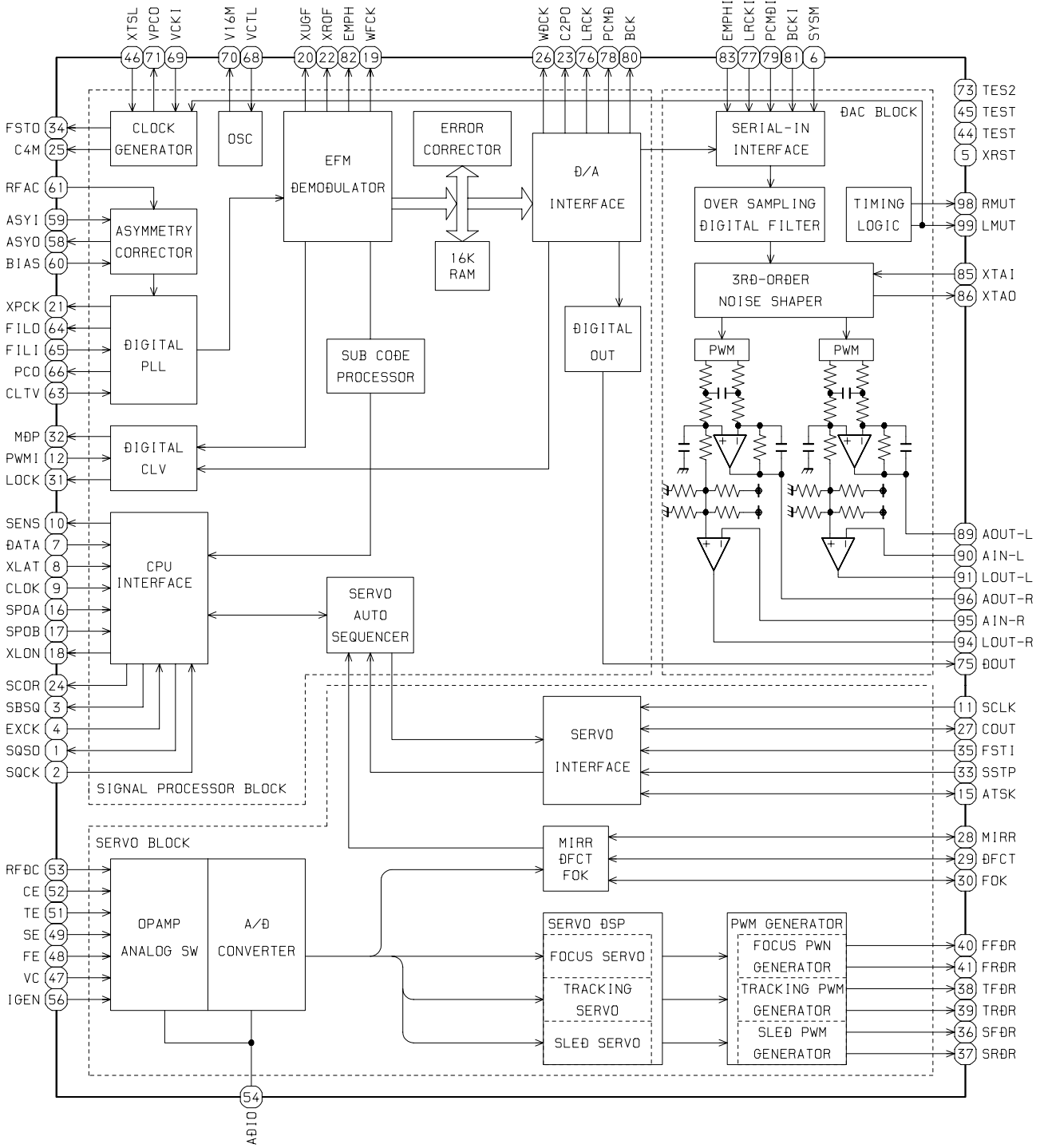
IC, BA6392FP



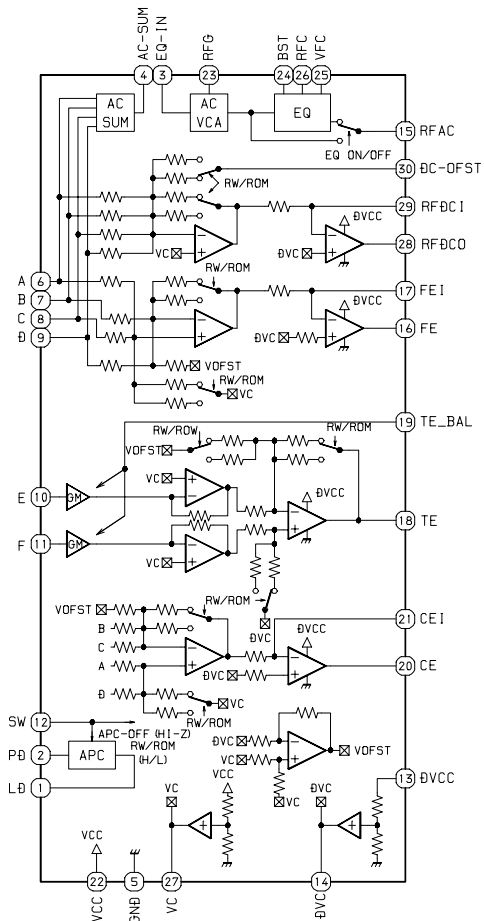
IC, NJM4558MD



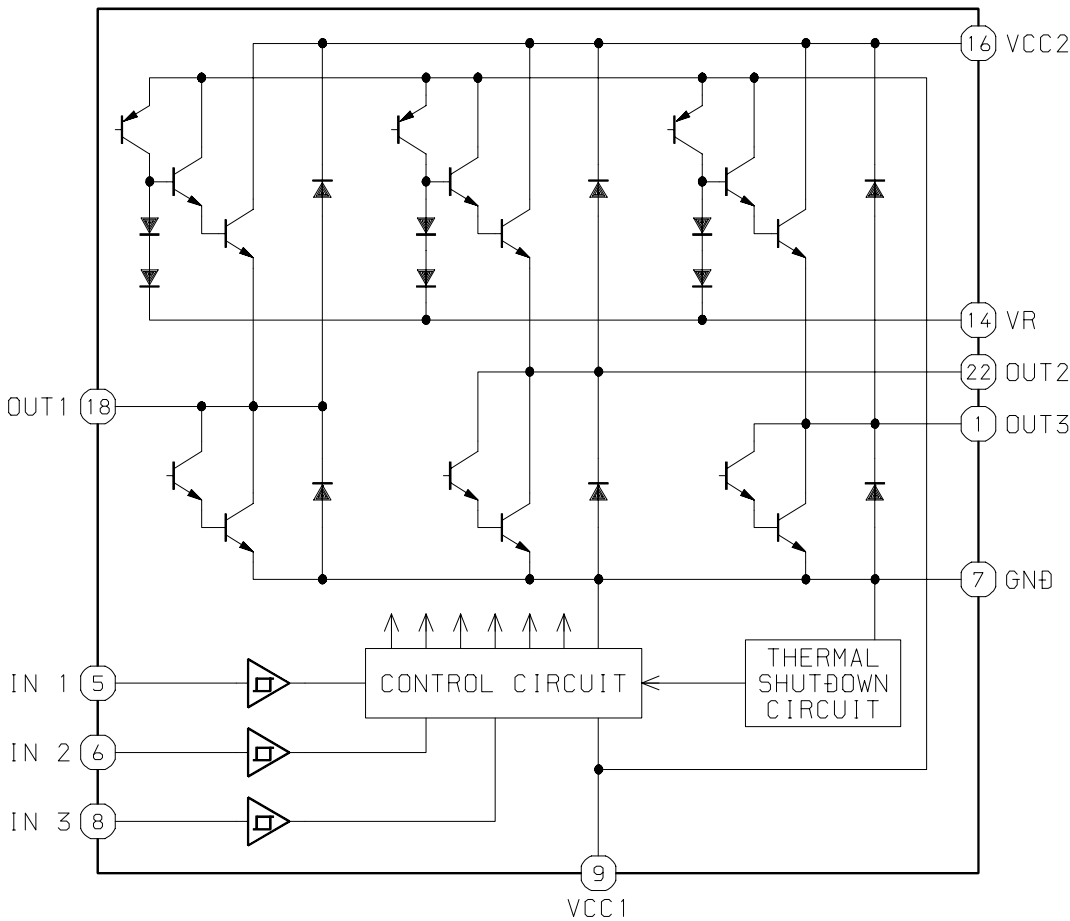
IC, CXD2588R



IC, CXA2581N



IC, BA6247FP



IC DESCRIPTION

IC, CXP84632-143Q

Pin No.	Pin Name	I/O	Description
1 ~ 4	NC	–	Not connected.
5	EEPDI	–	Connected to GND. (Not used).
6	SCLK	O	SENS read clock out.
7	SENS	I	SENS in.
8	XLAT	O	DSP data latch out.
9	SYSM	O	DSP(DAC) system mute control. (H : MUTE).
10	DRST	O	DSP IC reset. (L : RESET).
11	EMPHA	O	DSP(DAC) DE EMPHASYS control. (H : ON).
12, 13	PWRCNT1, 2	O	POWER control out 1, 2.
14	SENS	I	DISC IN detect sensor in.
15	RFSW	O	RFAMP GAIN select out. (H : CD - RW).
16	(EASSON) RFSEL	O	RFAMP Fs select out. (x2 speed : L). (Not used).
17	LEDCONT	O	LED on / off out. (H : ON).
18	ELCONT	O	MOTOR DRIVER control out 1.
19	LDCONT	O	MOTOR DRIVER control out 2.
20	MCONT	O	MOTOR DRIVER control out 3.
21	PHPWR	O	PHOTO SENSOR ON / OFF out. (H : ON).
22	EJECT	I	EJECT SW in. (Pull 22 ~ 28 SW L : ON).
23	INIT	I	INITIAL POSITION SW in.
24	MZIN	I	DISC MAGAZINE IN SW in.
25	MZLOCK	I	DISC MAGAZINE LOCK SW in.
26	UNLOAD	I	UNLOAD POSITION SW in.
27	LS	I	PU INNER POSITION SW in.
28	CHUCK	I	CHUCKING POSITION SW in.
29	CD6/10	I	6 / 10 DISC selector. (OPEN : 6 disc).
30	RESET	–	IC RESET. (L : RESET).
31	EXTAL	–	12 MHz CLOCK.
32	XTAL	–	12 MHz CLOCK.
33	VSS	–	IC GND.
34	TX	–	Not used.
35	TEX	–	Not used.
36	AVSS	–	GND. (A/D in GND).
37	AVREF	–	VDD. (A/D in Vref).
38	TEST0	I/O	TEST MODE select (L) / TEST KEY connect.
39 ~ 42	TEST1 ~ 4	–	Not used.
43	TEST5	I	CD TEXT FUNTION select. (L : NO TEXT). (Not used).
44	TEST6	–	Not used.
45	TEST7	I	EASS FUNCTION select. (L : NO EASS). (Not used).
46	NC	–	Not connected.
47	SQSI	I	SUBCODE CRC flag check.
48	SQCLK	O	SUBCODE READ CLOCK out.

Pin No.	Pin Name	I/O	Description
49	SQSI	I	SUBCODE DATA in.
50	NC	–	Not connected.
51	DCLK	O	DSP / DRAM controller DATA CLOCK out.
52	ZSENS	I	DRAM controller DATA in. (Not used).
53	DATAO	O	DSP / DRAM controller DATA out.
54	PHSENS	I	PHOTO SENSOR in.
55	C2PO	I	C2 error flag in. (H : C2 error).
56	LOCK	I	LOCK in. (H : SPINDLE SERVO LOCK).
57	FOK	I	FOK in (H : FOCUS OK).
58, 59	NC	–	Not connected.
60	ACCNT	I	ACC CONT in. (H : ON).
61	CLKO	O	Adjust SERIAL CLOCK out.
62	CLKI	I	SERIAL CLOCK in.
63	SCOR	I	SUBCODE SYNC in.
64	DSPSEL	I	SERIAL BUS enable in.
65	SBCLKI	I	Adjust SERIAL CLOCK in.
66	SBDTI	I	SERIAL DATA in.
67	NC	–	Not connected.
68	SBCLKO	O	SERIAL CLOCK out.
69	SBDTO	O	SERIAL DATA out.
70	NC	–	Not connected.
71	BUCHK	I	Connected to VDD. (Not used).
72	VDD	–	IC VDD.
73	NC	–	Connected to VDD.
74	AMUTE	–	Not used.
75	SPCON	O	MOTOR DRIVER STANDBY control. (L : MUTE).
76	NRST	O	DRAM controller IC RESET. (L : RESET). (Not used).
77	YMLD	O	DRAM controller DATA LATCH out. (Not used).
78	LED1	O	DISC detect sensor LED on / off. (L : ON).
79, 80	LED2, 3	–	Not used.

VOLTAGE CHART

IC101, CXD2588R

PIN NO.	CD x 1	CD x 2	RW x 1
1	DATA LINE	DATA LINE	DATA LINE
2	4.56	4.56	4.56
3	0.11	0.11	0.11
4	0	0	0
5	4.60	4.60	4.60
6	0	0	0
7	DATA LINE	DATA LINE	DATA LINE
8	4.59	4.59	4.59
9	4.57	4.57	4.57
10	0.03	0.03	0.03
11	4.61	4.61	4.61
12 ~ 14	4.06	4.06	4.06
15 ~ 18	0	0	0
19 ~ 20	2.03	2.03	2.03
21	1.92	1.92	1.92
22	4.06	4.06	4.06
23	0	0	0
24	0.05	0.05	0.05
25	1.92	1.92	1.92
26	2.00	2.00	2.00
27 ~ 28	0.01	0.01	0.01
29	0.04	0.04	0.04
30 ~ 31	4.06	4.06	4.06
32	2.25	2.25	2.25
33	0	0	0
34 ~ 35	2.25	2.25	2.25
36 ~ 41	DATA LINE	DATA LINE	DATA LINE
42 ~ 46	0	0	0
47	2.02	2.02	2.02
48	1.98	1.98	1.98
49 ~ 50	0	0	0
51	DATA LINE	DATA LINE	DATALINE
52	2.02	2.02	2.02
53	2.79	2.79	2.79
54	1.95	1.95	1.95
55	0	0	0
56	1.73	1.73	1.73
57	3.92	3.92	3.92
58	1.95	1.95	1.95
59	1.96	1.96	1.96
60	0.80	0.80	0.80

PIN NO.	CD x 1	CD x 2	RW x 1
61	1.96	1.96	1.96
62	0	0	0
63 ~ 64	2.04	2.04	2.04
65 ~ 66	1.96	1.96	1.96
67	3.92	3.92	3.92
68	0	0	0
69 ~ 70	1.63	1.63	1.63
71	0.01	0.01	0.01
72 ~ 73	0	0	0
74	4.06	4.06	4.06
75	0.01	0.01	0.01
76	2.02	2.02	2.02
77 ~ 78	2.03	2.03	2.03
79	1.35	1.35	1.35
80	1.96	1.96	1.96
81	2.00	2.00	2.00
82	4.06	4.06	4.06
83	4.60	4.60	4.60
84	4.06	4.06	4.06
85	0	0	0
86	1.98	1.98	1.98
87	0	0	0
88	3.91	3.91	3.91
89	0	0	0
90 ~ 91	1.62	1.62	1.62
92 ~ 93	0	0	0
94	1.61	1.61	1.61
95	1.62	1.62	1.62
96	1.63	1.63	1.63
97	3.93	3.93	3.93
98 ~ 99	4.06	4.06	4.06
100	0	0	0

IC622, PQ20WZ1U

PIN NO.	CD x 1	CD x 2	RW x 1
1	13.10	13.10	13.10
2	4.57	4.57	4.57
3	11.11	11.11	11.11
4	2.67	2.67	2.67
5	0	0	0

IC201, CXP84632-143Q

PIN NO.	CD x 1	CD x 2	RW x 1
1	0	0	0
2 ~ 3	4.64	4.64	4.64
4 ~ 5	0	0	0
6	4.61	4.61	4.61
7	0.03	0.03	0.03
8	4.59	4.59	4.59
9	0	0	0
10 ~ 11	4.59	4.59	4.59
12 ~ 13	4.57	4.57	4.57
14	4.59	4.59	4.59
15	0	0	4.6
16	4.63	0.09	4.63x1 / 0.09x2
17	4.62	4.62	4.62
18 ~ 21	0	0	0
22 ~ 23	4.59	4.59	4.59
24 ~ 25	0	0	0
26 ~ 27	4.59	4.59	4.59
28 ~ 29	0	0	0
30	4.16	4.16	4.16
31	2.27	2.27	2.27
32	2.43	2.43	2.43
33	0	0	0
34	4.64	4.64	4.64
35 ~ 36	0	0	0
37	4.65	4.65	4.65
38	4.62	4.62	4.62
39 ~ 41	0	0	0
42	4.60	0	0
43	4.60	4.60	4.60
44	4.60	0	0
45 ~ 46	4.60	4.60	4.60
47	DATA LINE	DATA LINE	DATA LINE
48	4.56	4.56	4.56
49	DATA LINE	DATA LINE	DATA LINE
50	0	0	0
51	4.57	4.57	4.57
52 ~ 53	DATA LINE	DATA LINE	DATA LINE
54	4.64	4.64	4.64
55	0	0	0
56 ~ 57	4.06	4.06	4.06
58 ~ 59	0	0	0
60	4.65	4.65	4.65

PIN NO.	CD x 1	CD x 2	RW x 1
61	4.64	4.64	4.64
62	0	0	0
63	0.05	0.05	0.05
64	DATA LINE	DATA LINE	DATA LINE
65	4.64	4.64	4.64
66 ~ 67	0	0	0
68	4.64	4.64	4.64
69	DATA LINE	DATA LINE	DATA LINE
70	0	0	0
71 ~ 73	4.65	4.65	4.65
74	0	0	0
75	4.59	4.59	4.59
76 ~ 77	4.63	4.63	4.63
78	4.00	4.00	4.00
79 ~ 80	0	0	0

IC501, BA6392FP

PIN NO.	CD x 1	CD x 2	RW x 1
1	4.45	4.45	4.45
2	5.03	5.03	5.03
3	4.48	4.48	4.48
4 ~ 5	DATA LINE	DATA LINE	DATA LINE
6	4.75	4.75	4.75
7	4.77	4.77	4.77
8	0	0	0
9 ~ 10	DATA LINE	DATA LINE	DATA LINE
11	4.73	4.73	4.73
12	4.71	4.71	4.71
13	4.76	4.76	4.76
14	0	0	0
15	4.59	4.59	4.59
16	4.78	4.78	4.78
17	4.69	4.69	4.69
18	4.76	4.76	4.76
19 ~ 20	DATA LINE	DATA LINE	DATA LINE
21 ~ 22	9.90	9.90	9.90
23	2.03	2.03	2.03
24	2.22	2.03	2.03
25	2.03	2.03	2.03
26	5.02	5.02	5.02
27	4.36	4.36	4.36
28	0	0	0

IC551, BA6247FP

PIN NO.	CD x 1	CD x 2	RW x 1
1	0.55	0.55	0.55
2 ~ 4	0	0	0
5 ~ 6	DATA LINE	DATA LINE	DATA LINE
7	0	0	0
8	DATA LINE	DATA LINE	DATA LINE
9	10.33	10.33	10.33
10 ~ 15	0	0	0
16	10.33	10.33	10.33
17	0	0	0
18	0.55	0.55	0.55
19 ~ 21	0	0	0
22	0.55	0.55	0.55
23 ~ 25	0	0	0

IC251, TC74HC365AF

PIN NO.	CD x 1	CD x 2	RW x 1
1 ~ 8	0	0	0
9 ~ 10	4.64	4.64	4.64
11 ~ 14	DATA LINE	DATA LINE	DATA LINE
15	0	0	0
16	4.65	4.65	4.65

IC301, NJM4558MD

PIN NO.	CD x 1	CD x 2	RW x 1
1 ~ 3	6.30	6.30	6.30
4	0	0	0
5 ~ 7	6.30	6.30	6.30
8	10.65	10.65	10.65

IC151, CXA2581N

PIN NO.	CD x 1	CD x 2	RW x 1
1	2.57	2.57	2.57
2	0.158	0.158	0.158
3	2.03	2.03	2.03
4	2.10	2.10	2.10
5	0	0	0
6	2.15	2.15	2.15
7	2.14	2.14	2.14
8 ~ 9	2.13	2.13	2.13
10 ~ 11	2.04	2.04	2.04
12	0	0	4.61
13	4.06	4.06	4.06
14	2.04	2.04	2.04
15	2.19	2.19	2.19
16	2.00	2.00	2.00
17	2.04	2.04	2.04
18	1.95	1.95	1.95
19	2.04	2.04	2.04
20	2.02	2.02	2.02
21	2.04	2.04	2.04
22	4.06	4.06	4.06
23	2.97	2.97	2.97
24	2.43	2.43	2.43
25	1.57	1.57	1.57
26	2.80	2.77	2.77
27	2.04	2.04	2.04
28	2.19	2.19	2.19
29	2.04	2.04	2.04
30	1.54	1.54	1.54

Q151, 2SB1197KQ

PIN	CD x 1	CD x 2	RW x 1
E	3.18	3.18	3.18
C	2.18	2.18	2.18
B	2.54	2.54	2.54

Q153, 2SA1037K(R)

PIN	CD x 1	CD x 2	RW x 1
E	2.80	2.80	2.80
C	0	0	0
B	2.19	2.19	2.19

Q201, UPA608T

PIN	CD x 1	CD x 2	RW x 1
E1	4.65	0	4.65
E2	0	4.64	0
C1	0	4.65	0
C2	4.64	0	4.64
B1	4.65	4.65	4.65
B2	0	0	0

Q202, 2SC2712GR

PIN	CD x 1	CD x 2	RW x 1
E	2.15	2.15	2.15
C	4.63	4.63	4.63
B	2.83	2.83	2.83

Q251, 2SC2712GR

PIN	CD x 1	CD x 2	RW x 1
E	0	0	0
C	0	0	0
B	0.64	0.64	0.64

Q252, DTA124EKA

PIN	CD x 1	CD x 2	RW x 1
E	4.65	4.65	4.65
C	4.65	4.65	4.65
B	0	0	0

Q253, 2SC2712GR

PIN	CD x 1	CD x 2	RW x 1
E	0	0	0
C	0	0	0
B	0.68	0.68	0.68

Q601, 2SD1622S-TD

PIN	CD x 1	CD x 2	RW x 1
E	4.65	4.65	4.65
C	13.10	13.10	13.10
B	5.23	5.23	5.23

Q621, 2SA1702

PIN	CD x 1	CD x 2	RW x 1
E	13.10	13.10	13.10
C	13.05	13.05	13.05
B	0	0	0

Q622, DTC124EKA

PIN	CD x 1	CD x 2	RW x 1
E	0	0	0
C	0.13	0.13	0.13
B	4.57	4.57	4.57

Q623, 2SD2395E

PIN	CD x 1	CD x 2	RW x 1
E	4.62	4.62	4.62
C	13.03	13.03	13.03
B	4.07	4.07	4.07

Q631, 2SD1623

PIN	CD x 1	CD x 2	RW x 1
E	11.06	11.06	11.06
C	11.10	11.10	11.10
B	11.65	11.65	11.65

PD201, PT4850F

PIN	CD x 1	CD x 2	RW x 1
E	0	0	0
C	4.58	4.58	4.58
B	—	—	—

TEST MODE

There are two methods to perform operation check using test mode. One method uses the head unit. The other method uses the repair jig. Because different operation buttons must be used for entering the operation modes and there are cases that unit does not run at all, in the method that uses the head unit, the method using the repair jig is described as follows;

1. How to start up the CD test mode

Connect the P.W.B Key in accordance “SERVICE JIG AND TOOLS” step (6). “How to use the repair jig - When the Control Unit (CDC/CT) is not used”.

- 1) While pressing the STOP button of the P.W.B Key, turn on the +12 V power of ACC/BACK UP.

2. How exit the CD test mode

- 1) Turn off the +12 V power of ACC/BACK UP.

3. Function description of CD test mode

Uses of the respective buttons of the P.W.B Key are described in Fig-11.

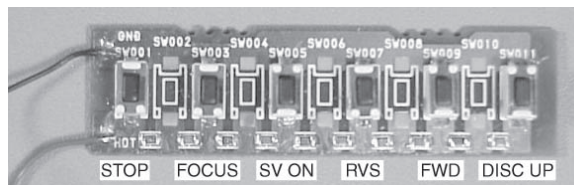
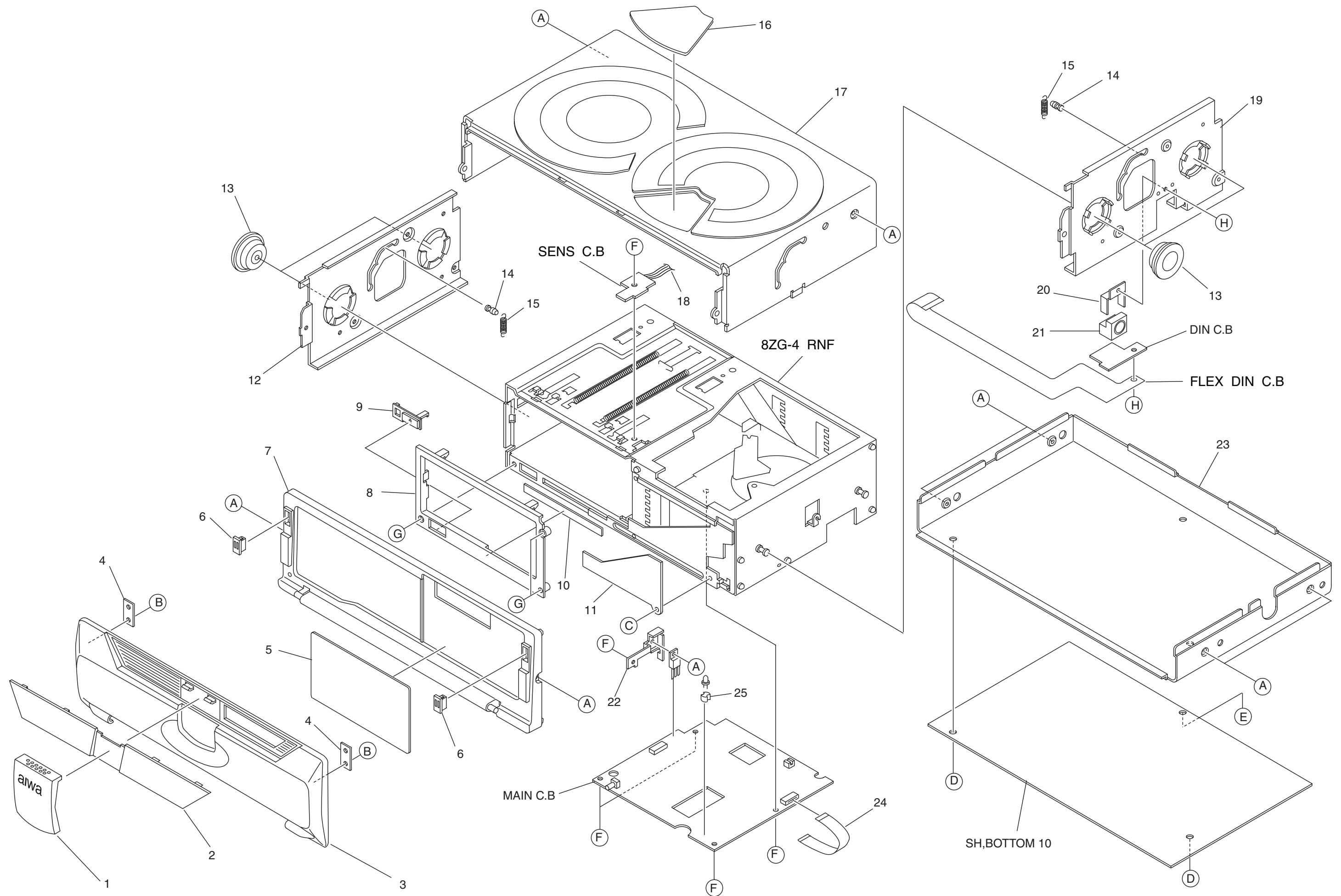


Fig-11

Mode	Operation key	Operation	Contents
Servo OFF	STOP	All servo off	
Search mode	FOCUS	Continuous focus search Pickup lens repeats full swing (Note 1)	APC circuit check Laser current measurement Focus error waveform check
Play mode	FOCUS ↓ SV ON	Normal playback	Focus servo Tracking servo CLV servo Sled servo
Sled mode	FWD RVS	Pickup moves to outer circumference Pickup moves to inner circumference	Sled servo Mechanism operation check
CD change	DISC UP	Disc unload ↓ Magazine change ↓ Disc load	Mechanism operation check (cyclic)

- During the PLAY mode, the REV, FWD and DISC UP keys are invalid. Press the STOP key once.
- When a Head Unit is connected, the Disc No. and the Track No. are shown on display in the same way as in the normal operation.

Note 1: If the focus search operation is continued for 10 minutes or longer, the driver IC heats up sufficiently to trigger the protection circuit, which stops the CD system. Turn off the main power and re-start operation about 10 minutes later.



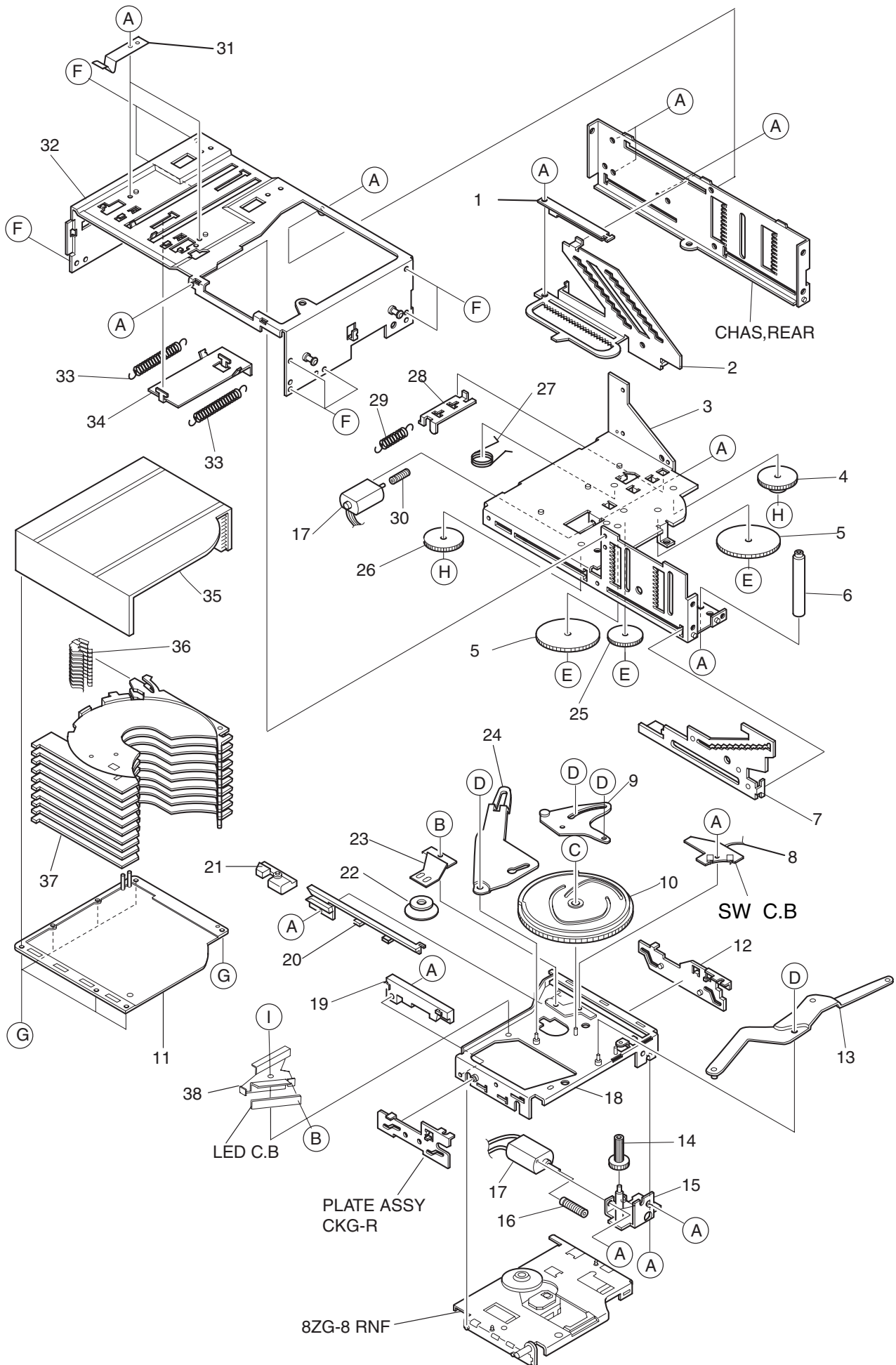
MECHANICAL PARTS LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-KM1-003-010		PANEL, FRONT 10
2	8Z-KM1-004-010		WINDOW, FRONT 10
3	8Z-KM3-031-010		CABI, FRONT EX108<108YZSF>
3	8Z-KM3-039-010		CABI, FRONT M105<EXCEPT 108YZSF>
4	8Z-KM1-207-010		PLATE, MAG
5	8Z-KM3-034-010		WINDOW, DECK EX108<108YZSF>
5	8Z-KM3-038-010		WINDOW, DECK M105<EXCEPT 108YZSF>
6	8Z-KM1-220-010		MAGNET, HLDR ASS'Y
7	8Z-KM3-032-010		CABI, FRAME 10S
8	8Z-KM1-208-010		COVER, DECK 10
9	8Z-KM1-006-110		KEY, EJECT
10	8Z-KM1-230-010		PLATE, DECK
11	8Z-KM1-217-010		COVER, PLATE 10
12	8Z-KM1-203-010		HLDR, DECK L10
13	88-ZG3-371-010		DMPR
14	8Z-KM1-202-010		SHAFT, FRAME
15	88-ZG4-542-010		SPR-E, DMPR 10
16	8Z-KM3-033-010		WINDOW, CD S
17	8Z-KM3-035-010		CABI, TOP 10S
18	8Z-KM3-608-010		F-CABL 2P (SENS KM3)
19	8Z-KM1-204-010		HLDR, DECK R10
20	8Z-KM1-201-010		HLDR, CD
21	8Z-KM3-638-010		JACK, DIN 13P
22	8Z-KM1-225-010		HLDR, REG
23	8Z-KM3-036-010		CABI, BOTTOM 10S
24	8Z-KM3-672-010		FF-CABLE 30P
25	8Z-KM1-232-010		HLDR, LED
A	87-B10-260-010		VTT+2.6-6 W/O SLOT BLK
B	8Z-KM1-223-010		S-SCREW, 2-5 (BLK)
C	87-B10-255-010		U+2-3 W/O CR
D	8Z-KM1-215-010		S-SCREW, M3-5-12
E	8Z-KM1-224-010		S-SCREW, M3-7-11
F	87-571-032-410		VIT+2-3
G	87-B10-244-010		V+2-5 W/O BLK
H	87-B10-245-010		U+2.6-4 W/O CR

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange	GM	Metallic Green
YM	Metallic Yellow	DM	Metallic Orange		

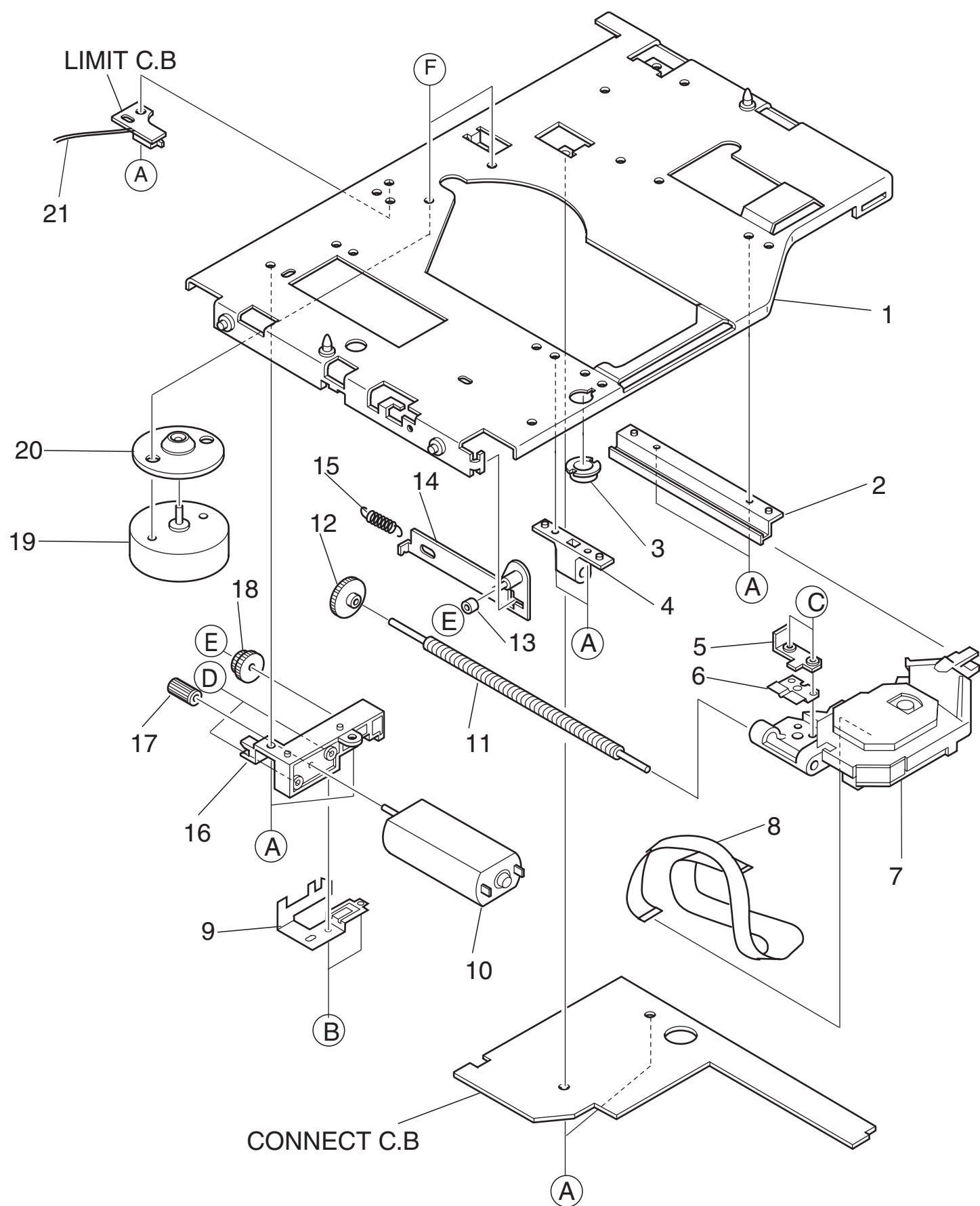
CD MECHANISM EXPLODED VIEW 1 / 2 (8ZG-4 RNF)



CD MECHANISM PARTS LIST 1 / 2 (8ZG-4 RNF)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	88-ZG4-521-210		PLATE, SLIT 10	26	88-ZG3-304-010		GEAR, ELV-F
2	88-ZG4-513-110		PLATE, ELV-R 10	27	88-ZG3-351-110		SPR-T, LEVER LOCK
3	88-ZG4-501-110		CHAS ASSY, MAIN 10	28	88-ZG3-274-010		PLATE, LOCK SW
4	88-ZG3-305-010		GEAR, ELV-R	29	88-ZG3-352-010		SPR-E, LOCK SW
5	88-ZG3-303-010		GEAR, ELV	30	88-ZG3-301-010		GEAR, WORM ELV
6	88-ZG4-531-010		SHAFT, GATA 10	31	88-ZG3-277-010		SPR-P, MAGAZINE
7	88-ZG4-512-110		PLATE, ELV-F 10	32	88-ZG4-506-110		CHAS ASSY, TOP 10
8	8Z-KM3-625-010		F-CABLE, 4P (SWITCH)	33	88-ZG4-541-010		SPR-E, EJECT 10
9	88-ZG3-226-010		LEVER ASSY, SLD-1	34	88-ZG3-278-010		PLATE, EJECT
10	88-ZG3-313-010		CAM, SLD	35	88-ZG4-001-110		MAGAZINE, T 10
11	88-ZG3-002-210		MAGAZINE, B	36	88-ZG4-514-110		SPR-P, TRAY 10
12	88-ZG3-246-010		PLATE ASSY, CKG-R	37	88-ZG3-003-210		TRAY,
13	88-ZG3-231-010		LEVER ASSY, CKG	38	8Z-KM1-214-010		HLDR, LED
14	88-ZG3-312-110		WORM-WHL, SLD	A	87-262-545-310		V+2-2.5
15	88-ZG3-221-010		HLDR ASSY, MOT ELV	B	87-261-031-410		V+2-2
16	88-ZG3-311-010		GEAR, WORM SLD	C	87-B10-258-010		W-P, 2.15-3.5-0.5
17	87-A91-054-010		MOT, FF-050SK	D	86-544-437-010		PW, 1.5-3.5-0.5
18	88-ZG3-211-110		CHAS ASSY, ELV	E	87-B10-272-010		W-P, 2.15-3.5-0.5 SLIT
19	88-ZG3-314-010		GUIDE, F	F	87-571-032-410		VIT+2-3
20	88-ZG3-315-210		GUIDE, R	G	87-067-869-010		V+1.7-8 HL BLK
21	88-ZG3-236-010		ARM ASSY,	H	87-067-310-010		PW, 2.1-4-0.15 C
22	88-ZG3-266-110		CLAMP ASSY,	I	87-262-545-310		V+2-2.5
23	88-ZG3-276-310		SPR-P, CLAMP				
24	88-ZG3-275-010		LEVER, SLD-2				
25	88-ZG3-302-010		WORM-WHL, ELV				

CD MECHANISM EXPLODED VIEW 2 / 2 (8ZG-8 RNF)



CD MECHANISM PARTS LIST 2 / 2 (8ZG-8 RNF)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	88-ZG8-401-210		CHAS ASSY,MECHA
2	88-ZG8-425-010		GUIDE,PICKUP
3	88-ZG3-317-010		CLR,ELV
4	88-ZG8-426-010		HLDR,LEAD
5	88-ZG8-428-110		LEVER,PUSH SW
6	88-ZG8-412-010		SPR-P,PICKUP
7	87-A91-630-010		PICKUP,KSS-710A
8	8Z-KM4-631-010		PWB,FLEX PICK UP (AK)
9	88-ZG8-411-110		SPR-P,LEAD
10	87-A91-054-010		MOT,FF-050SK
11	88-ZG8-431-010		SHAFT,LEAD
12	88-ZG8-424-010		GEAR,MECHA 3
13	88-ZG3-332-010		CLR,LEVER ATK
14	88-ZG3-256-110		LEVER ASSY,ATK-F
15	88-ZG3-354-010		SPR-E,LEVER ATK
16	88-ZG8-427-010		HLDR,MOT MECHA
17	88-ZG8-422-010		GEAR,MECHA 1
18	88-ZG8-423-010		GEAR,MECHA 2
19	87-A90-926-010		MOT,RF-3L0PA
20	88-ZG8-421-010		TURN TABLE
21	8Z-KM3-624-010		F-CABLE,2P (LIMIT)
A	87-571-032-410		VIT+2-3
B	87-352-529-310		VT2+1.7-4.0 BLK
C	88-ZG8-432-010		S-SCREW,V+1.7-5 IB LOCK
D	87-262-547-310		V+2-3 BLK
E	87-078-018-010		PW 1.55-3.6-0.25
F	87-262-523-310		V+1.7-2 3 BLK

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AIWA CO.,LTD. 2-11, IKENOHATA 1-CHOME, TAITO-KU, TOKYO 110, JAPAN TEL:03 (3827) 3111